

# **Tracking Network 101: What You've Wanted to Know, but Have Been Afraid to Ask Or Did Not Know Who or How to Ask**



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# The Tracking Network...

- Is a web-based, secure, distributed network of “standardized” electronic health and environmental data
- Relies on data and information housed at state and local sites and within national-level data systems
- Provides means to access hazard, exposure, and health data based and tools for environmental-health analysis
- Supports tracking efforts by improving information standardization, identification, access, and analysis

# National Network Implementation Plan (NNIP)

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CDC'S NATIONAL ENVIRONMENTAL PUBLIC HEALTH TRACKING PROGRAM

## NATIONAL NETWORK IMPLEMENTATION PLAN (NNIP)

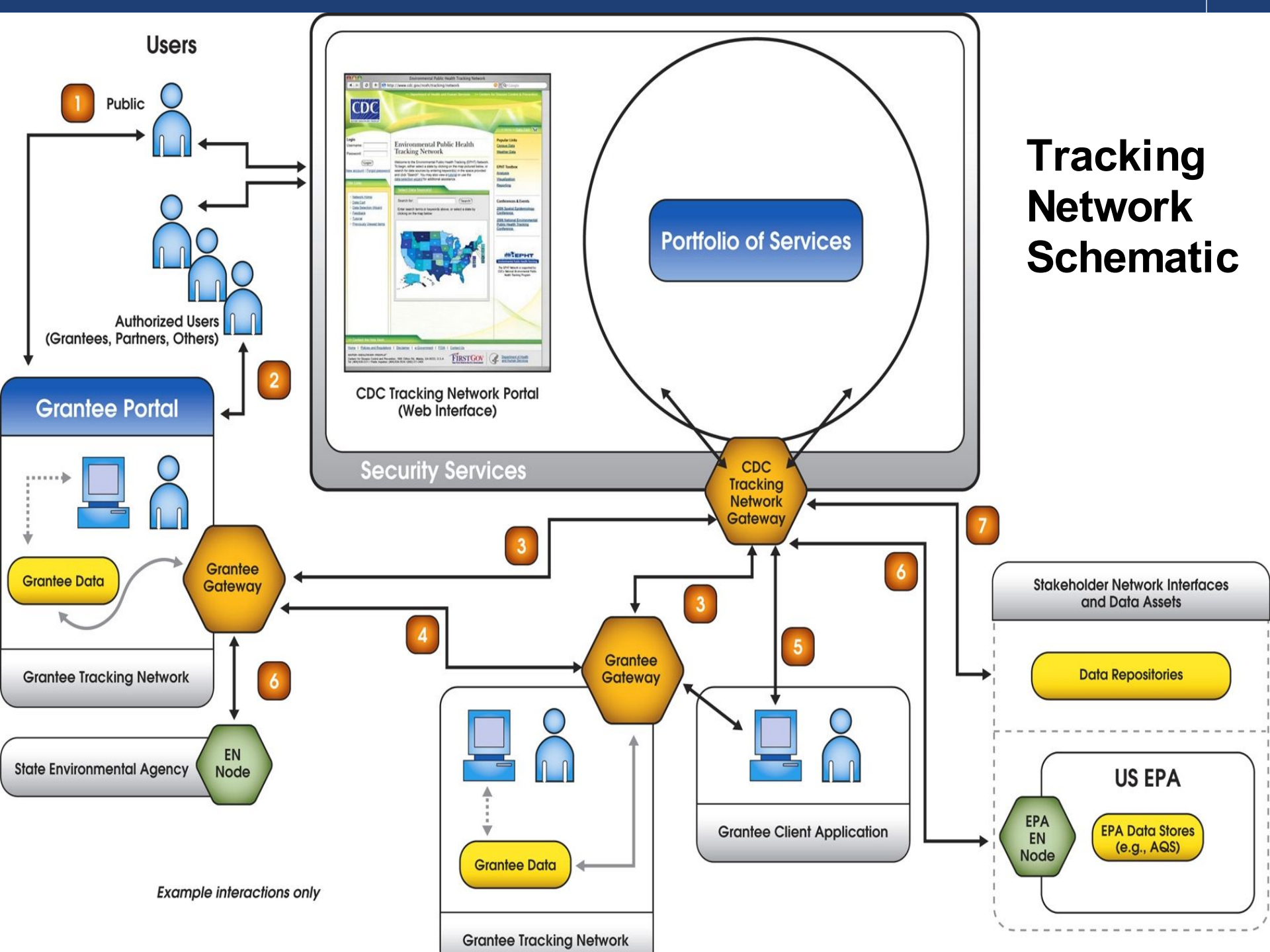


# Tracking Network Components

- Tracking Network National Portal (CDC)
- Tracking Network National Gateway (CDC)
- Grantee Tracking Network Interfaces (Portals and Gateways)
- Stakeholder Tracking Network Interfaces
- Nationally Consistent Data and Measures
- Stakeholder Data and Assets
- Portfolio of Services
- Tracking Network National Repositories

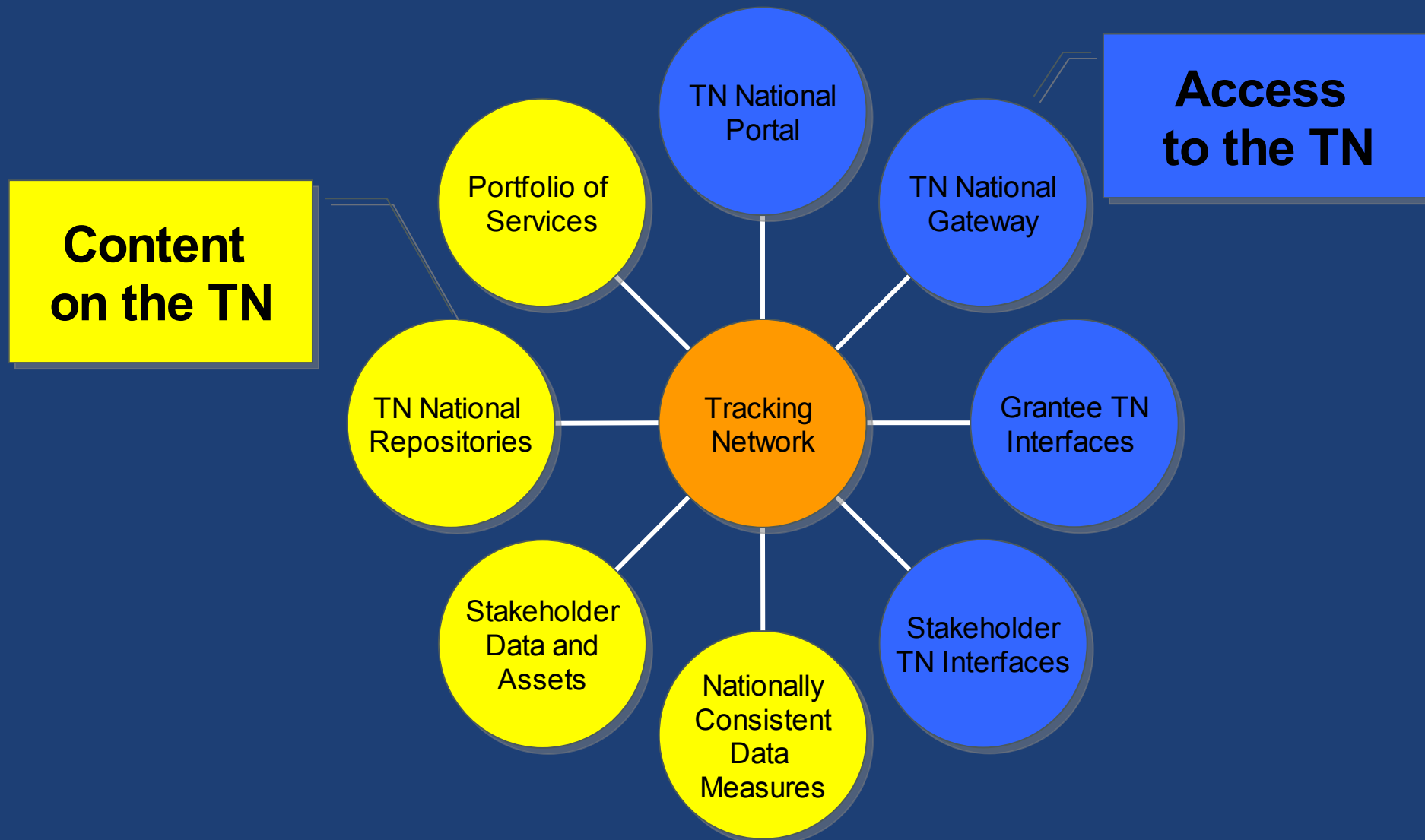


# Tracking Network Schematic

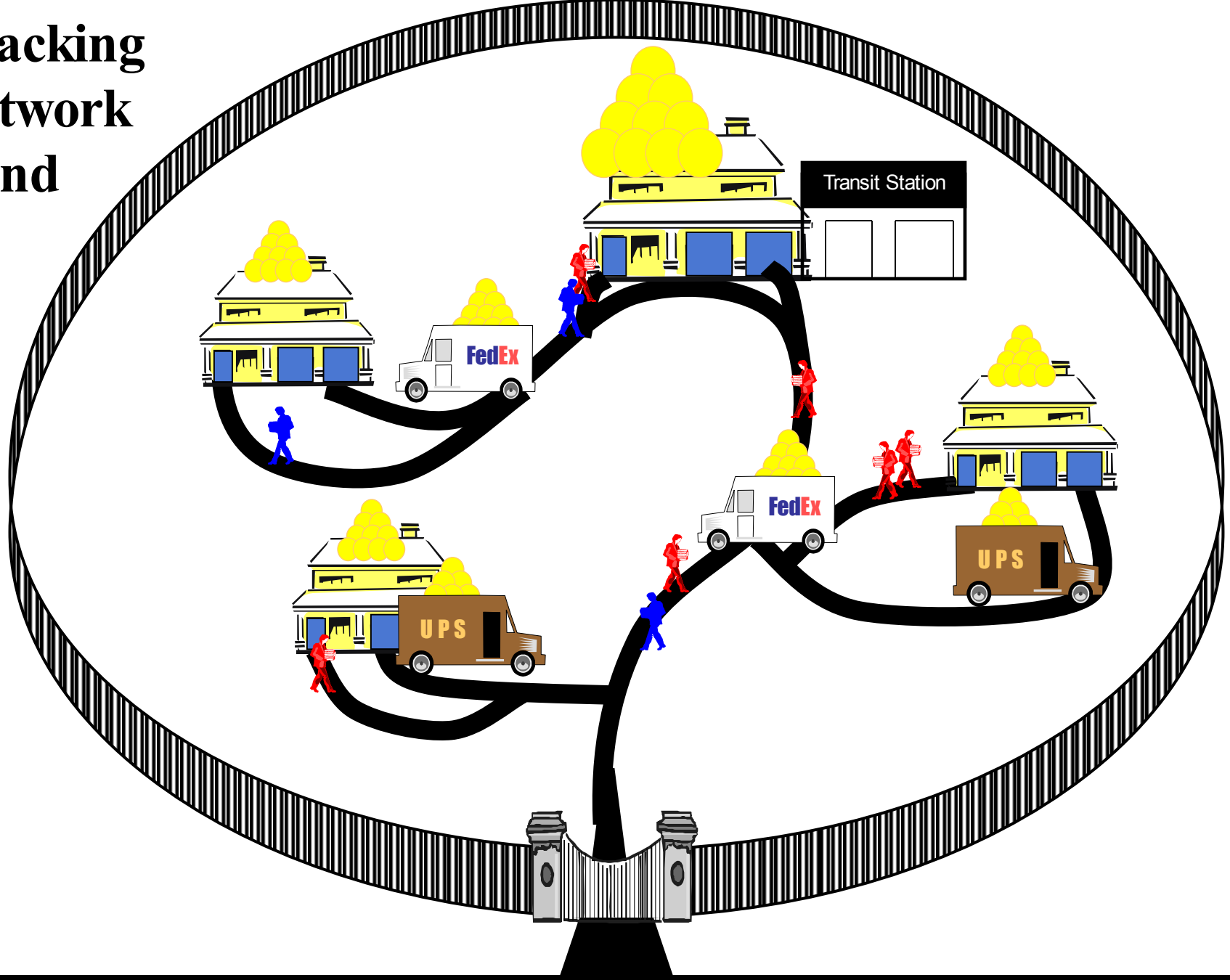


# Tracking Network Components - Simplified

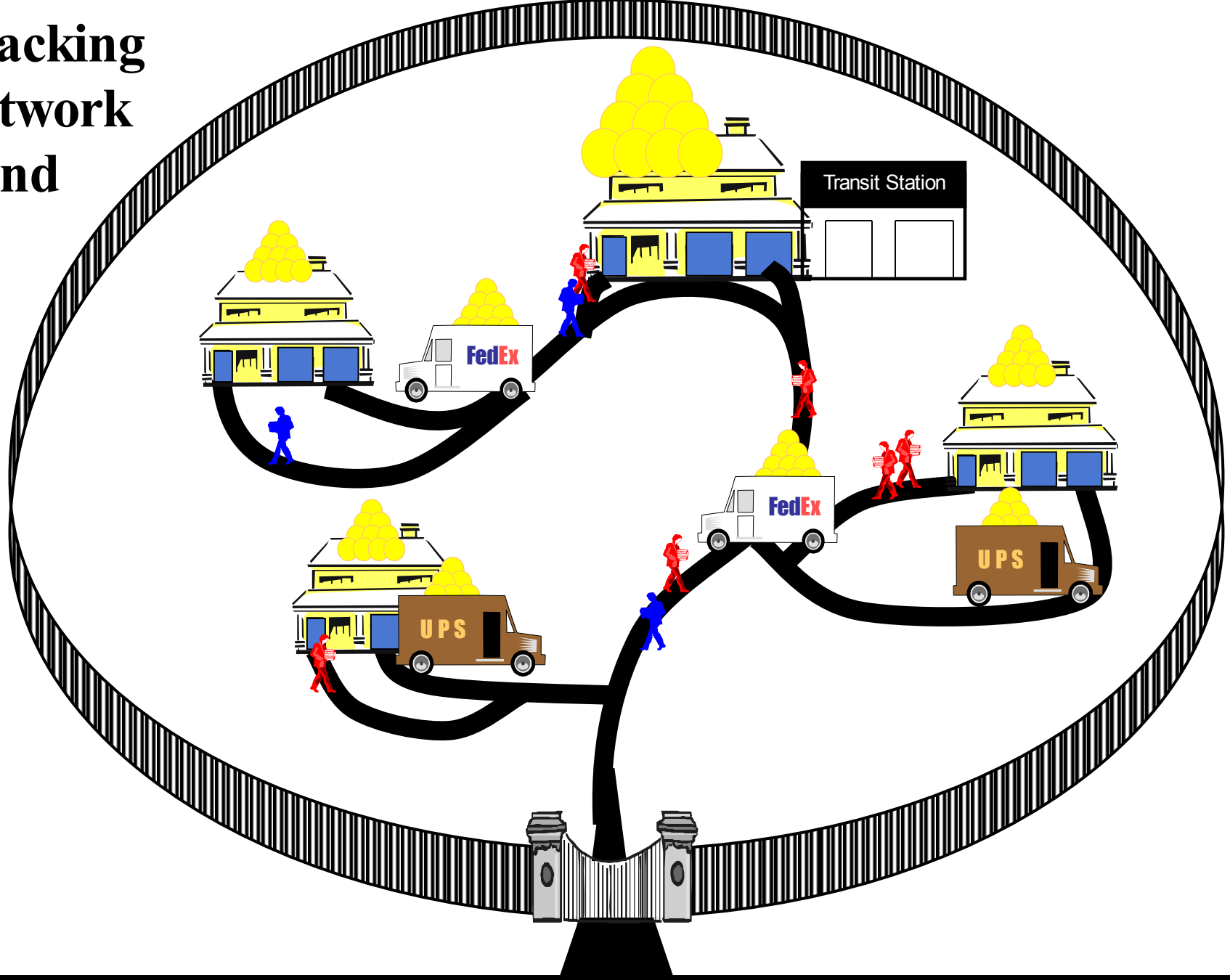
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# Tracking Network Land

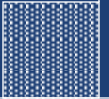


# Tracking Network Land





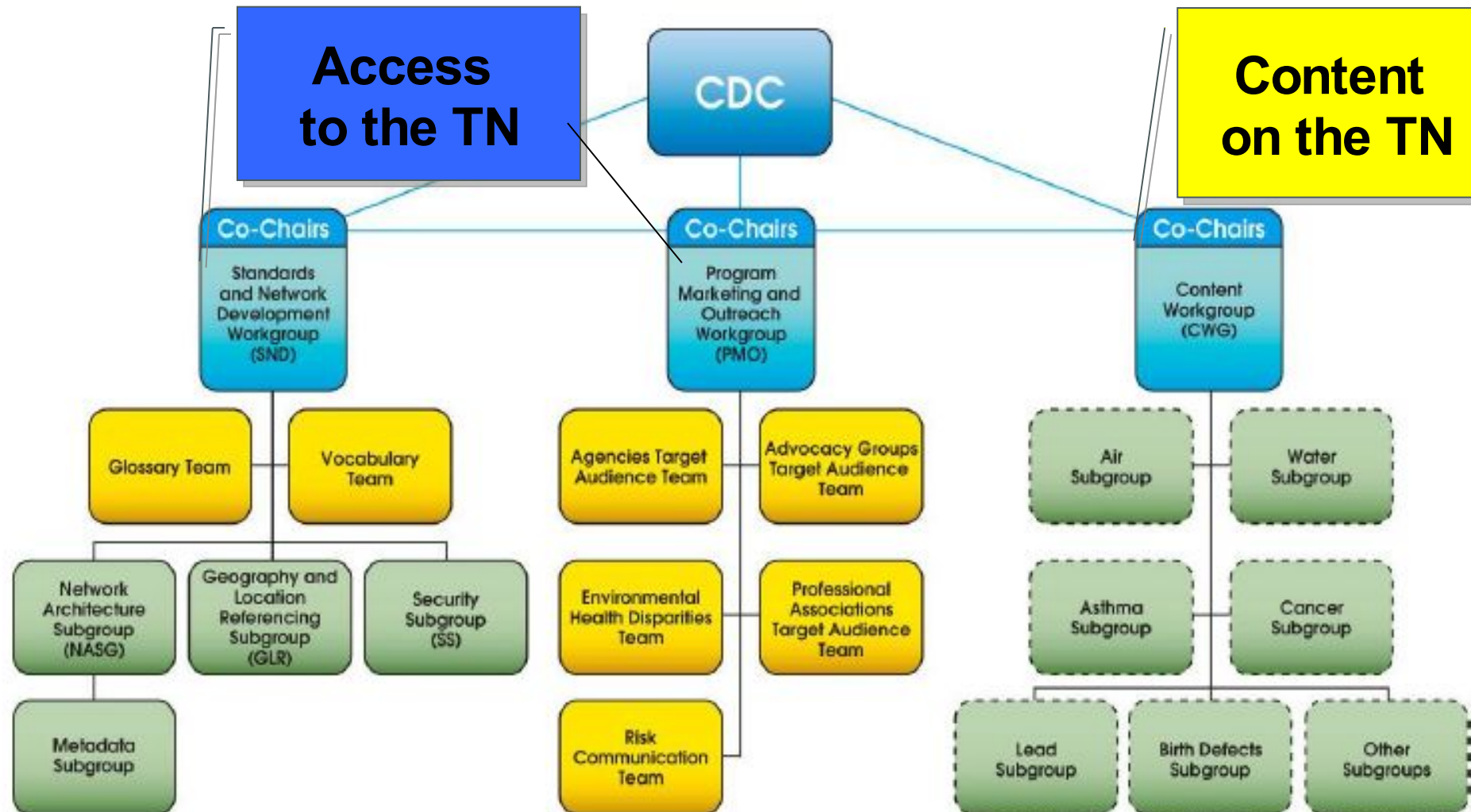
# Tracking Network Land



- Piles of Stuff (data, information, tools)
- Roads and Pathways with gates

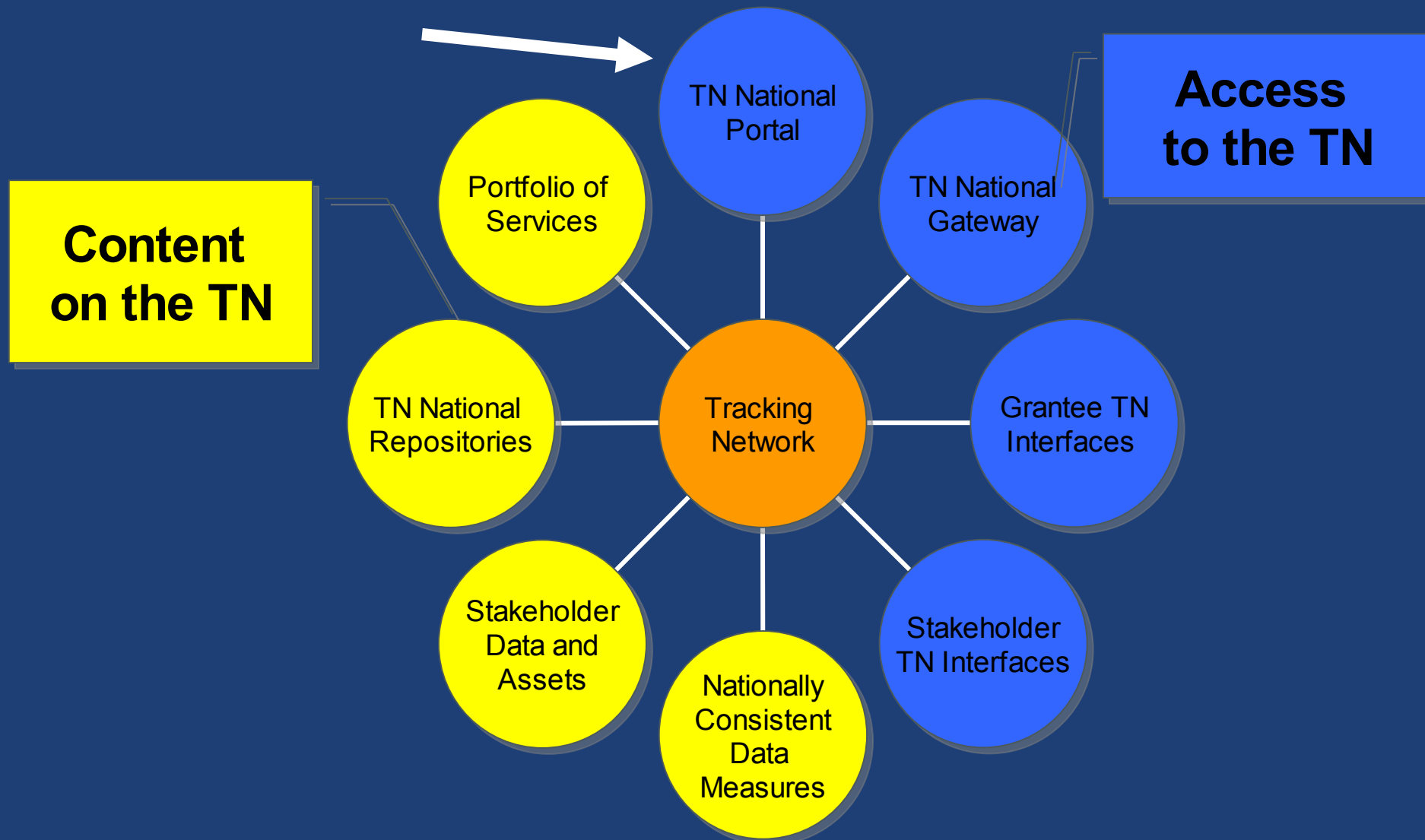
# Groups Working on the Tracking Network

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# Tracking Network Components

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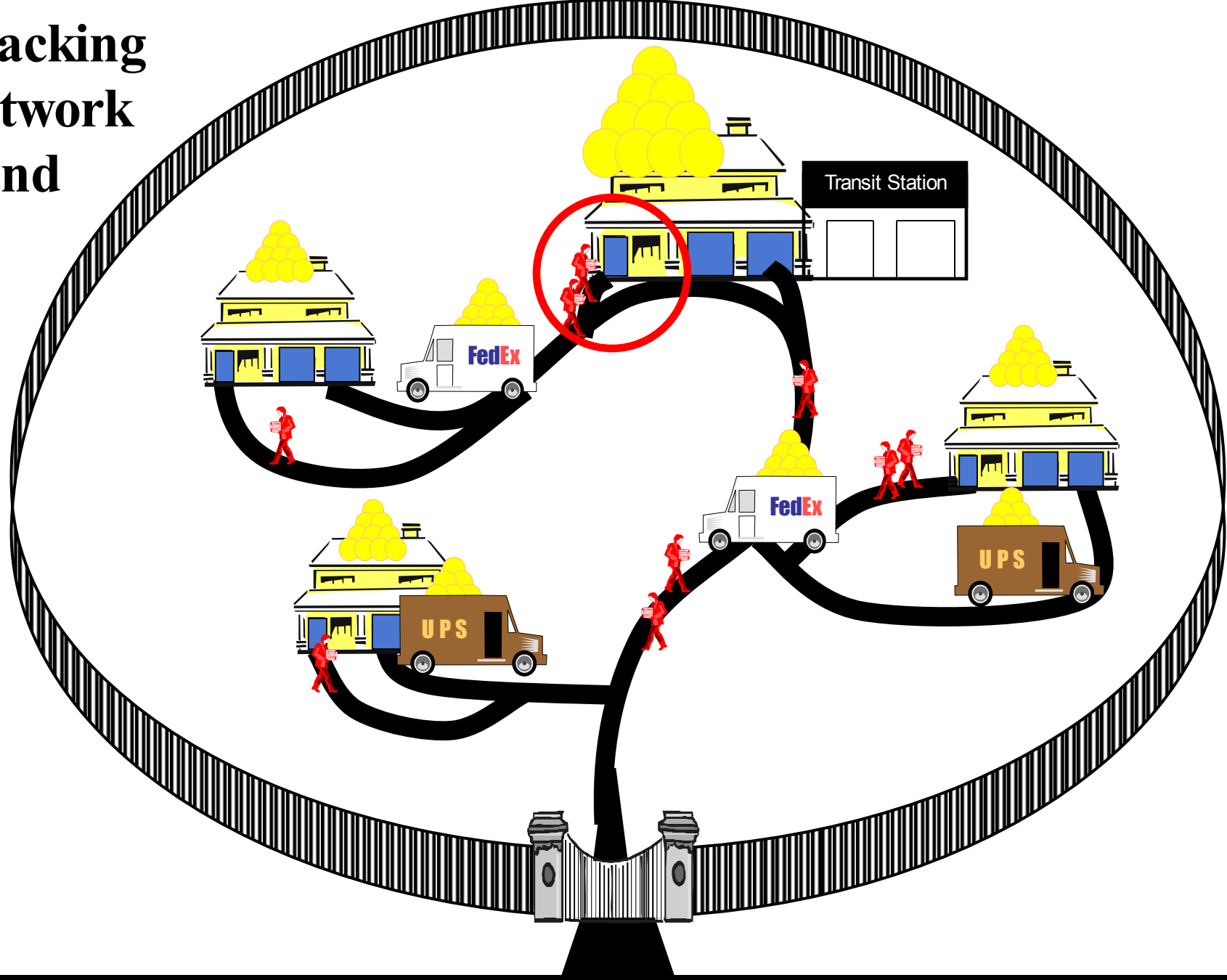
# Tracking Network National Portal

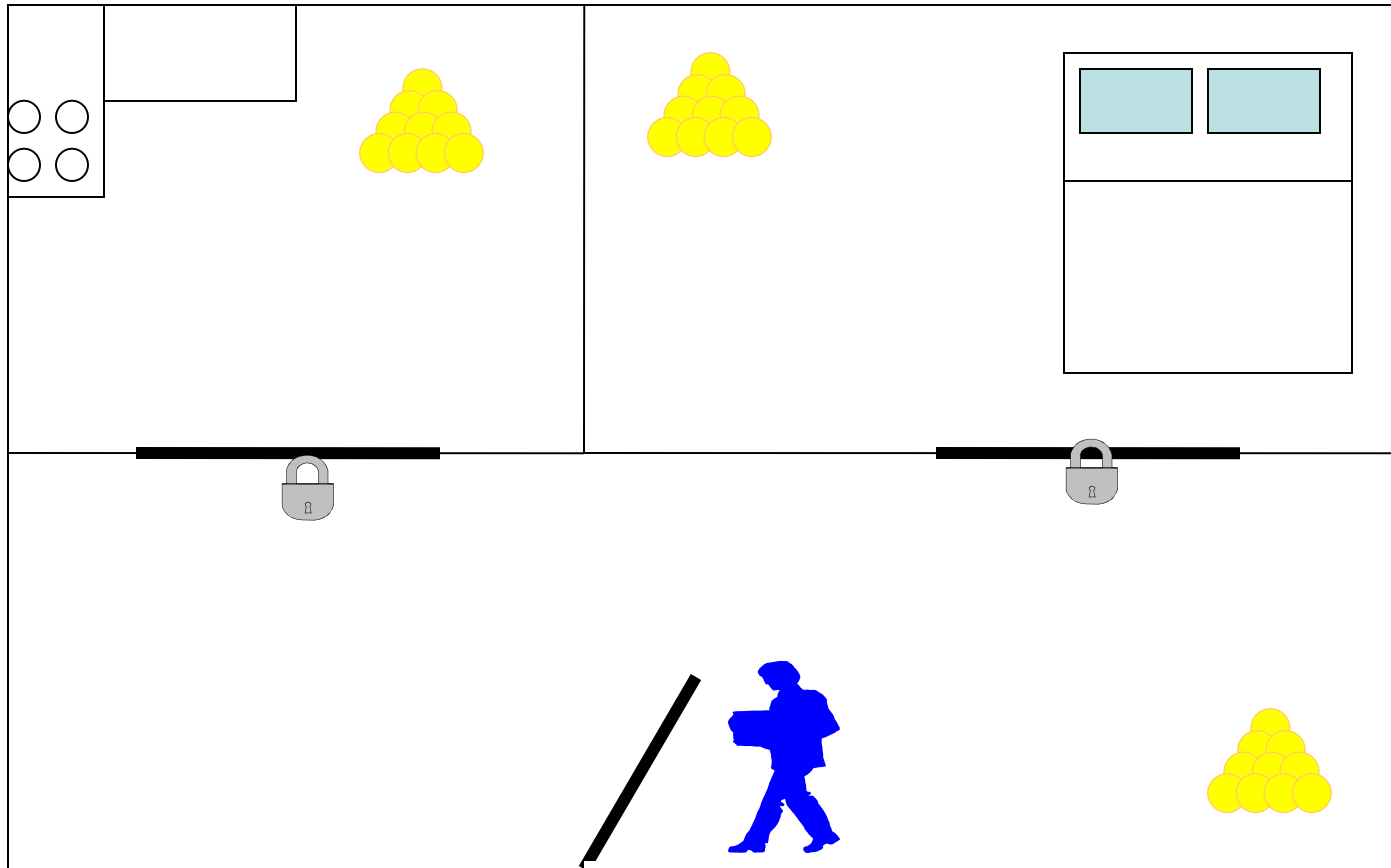
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- A portal is a Web site designed to support human interactions with applications, services, and information on the Tracking Network.
- CDC will establish a national portal for the Tracking Network to support stakeholders and the public.
- The Tracking Network national portal will support secure and non-secure transactions

TN National  
Portal

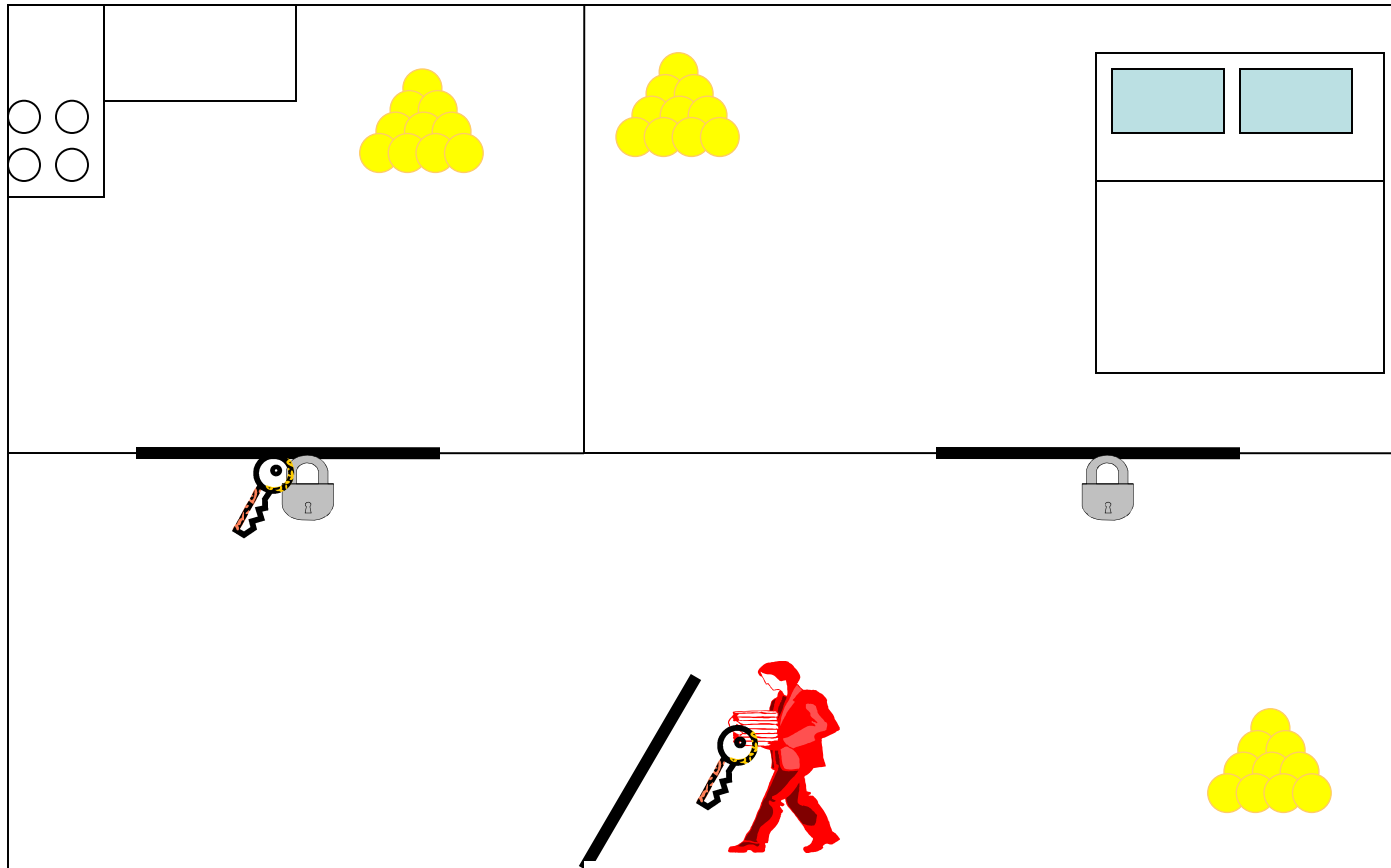
# Tracking Network Land





**Front Door = Portal  
Public Access**

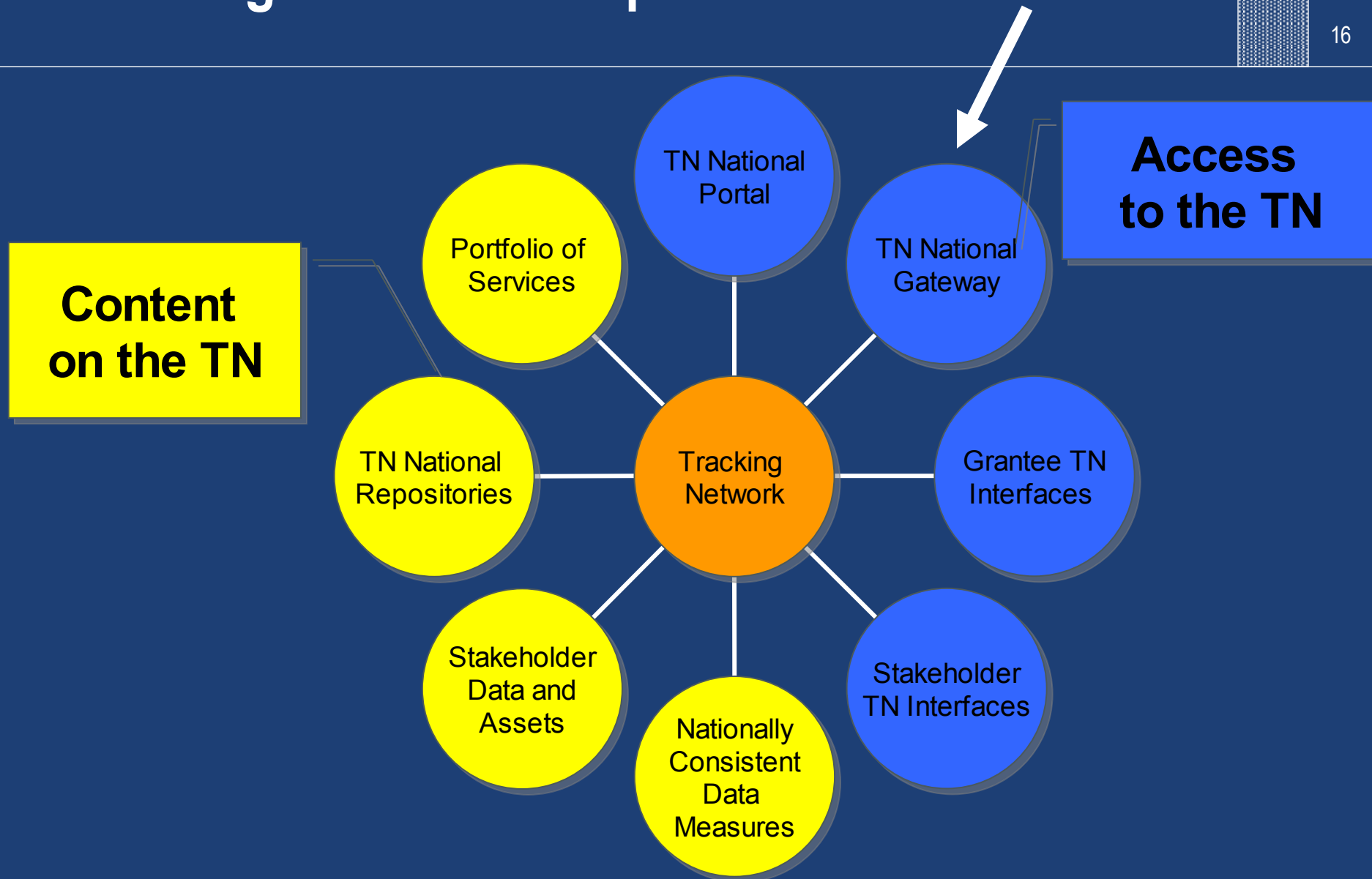




**Front Door = Portal  
Secure Access**

# Tracking Network Components

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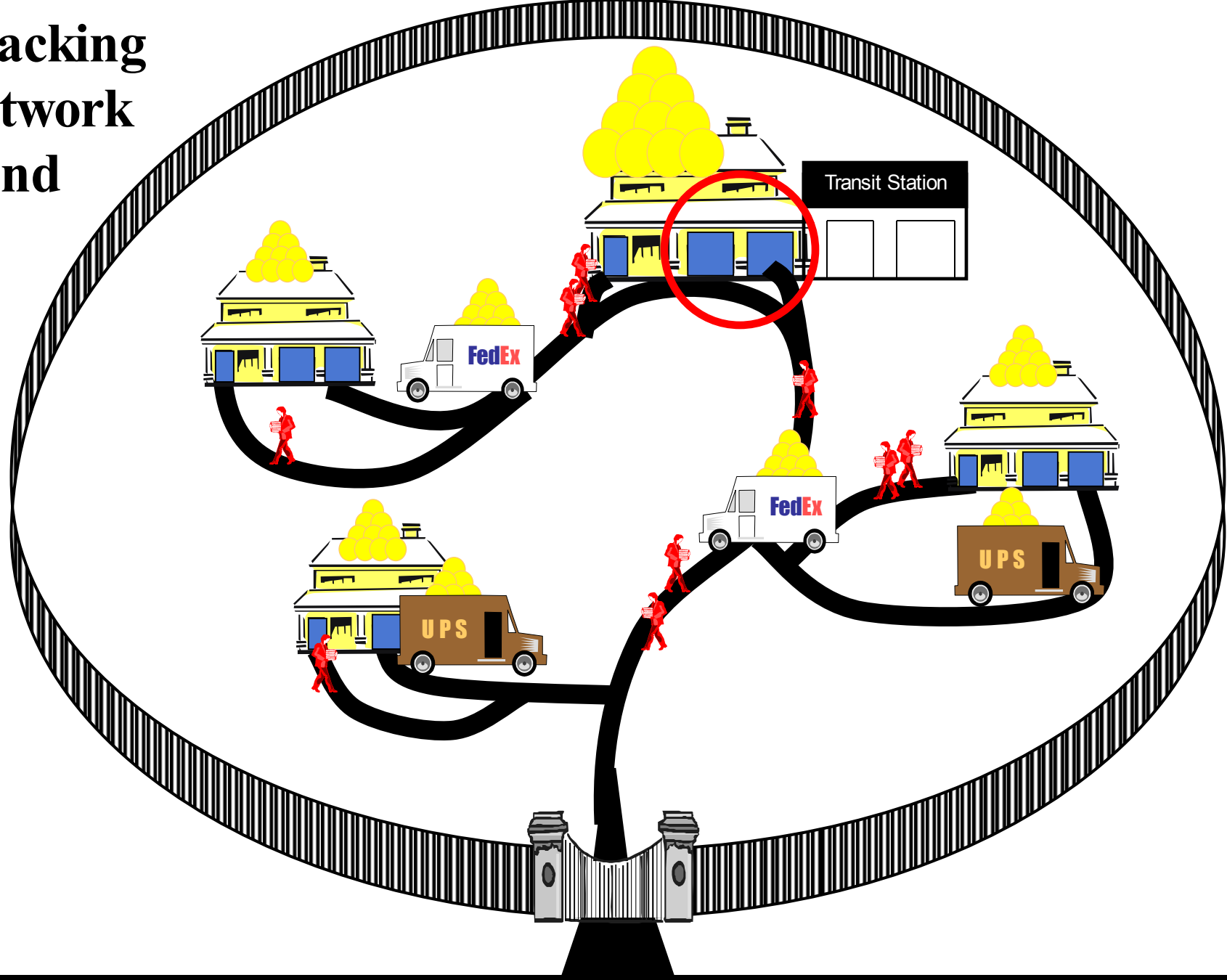


# Tracking Network National Gateway

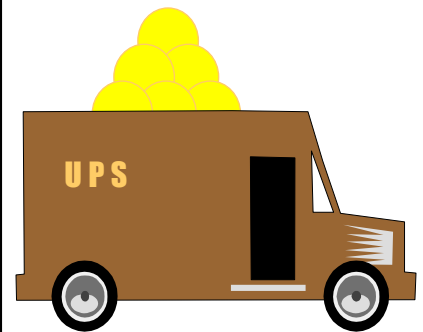
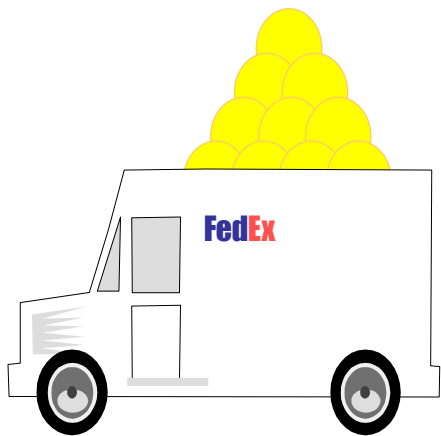
- The Tracking Network national gateway is the primary point of machine to machine interaction for data transfer on the Tracking Network.
- The Tracking Network will use one (or more) common protocols for transfer of information on the Tracking Network.

**TN National  
Gateway**

# Tracking Network Land



# Garage (Gateways)



# The Difference Between Portals and Gateways

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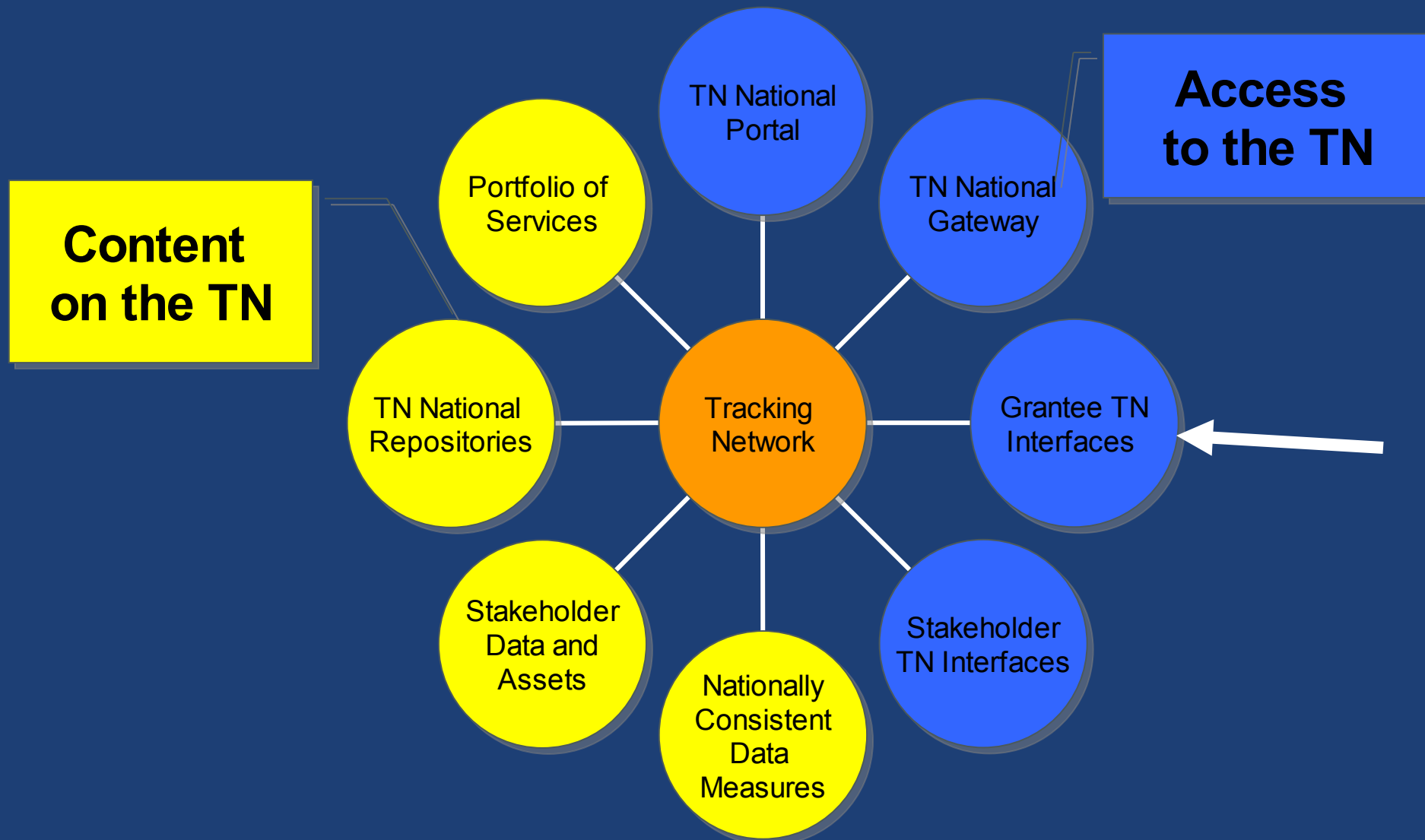
	Portals	Gateways
<b>Interface</b>	Human – Machine	Machine – Machine
<b>Frequency</b>	Ad hoc	Periodic
<b>Data Volume</b>	Low-Medium	High
<b>Access</b>	Web Browser	Gateway, Gateway Client
<b>Security</b>	Both Secure and Public	Secure
<b>Transport Mechanisms</b>	HTTPS, SFTP – for secure HTTP, FTP – for public	PHIN MS, Web Services
<b>Example</b>	HHS Learning Portal	EPA EN Node

TN Portal  
and  
Gateway



# Tracking Network Components

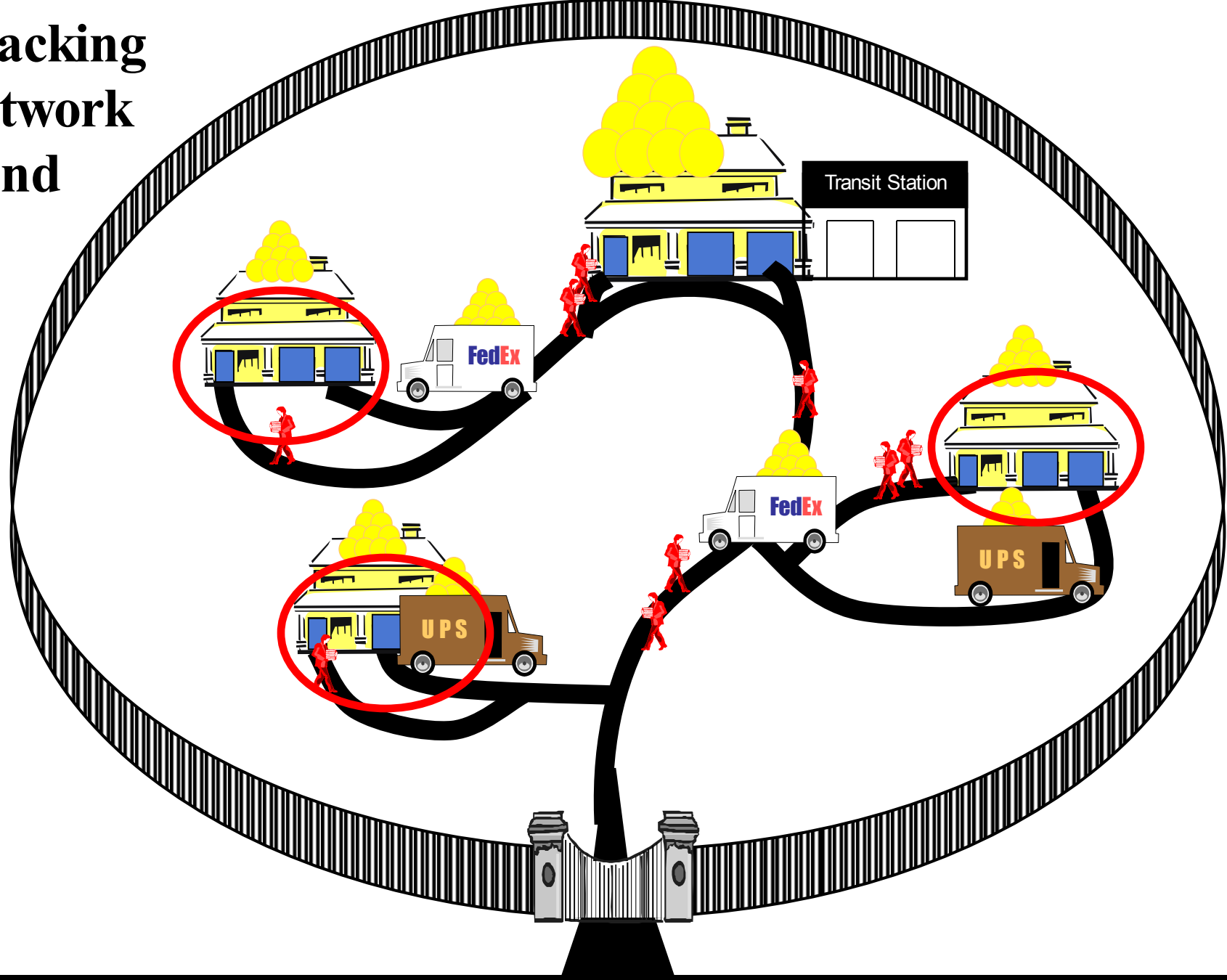
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# Grantee Tracking Network Interfaces

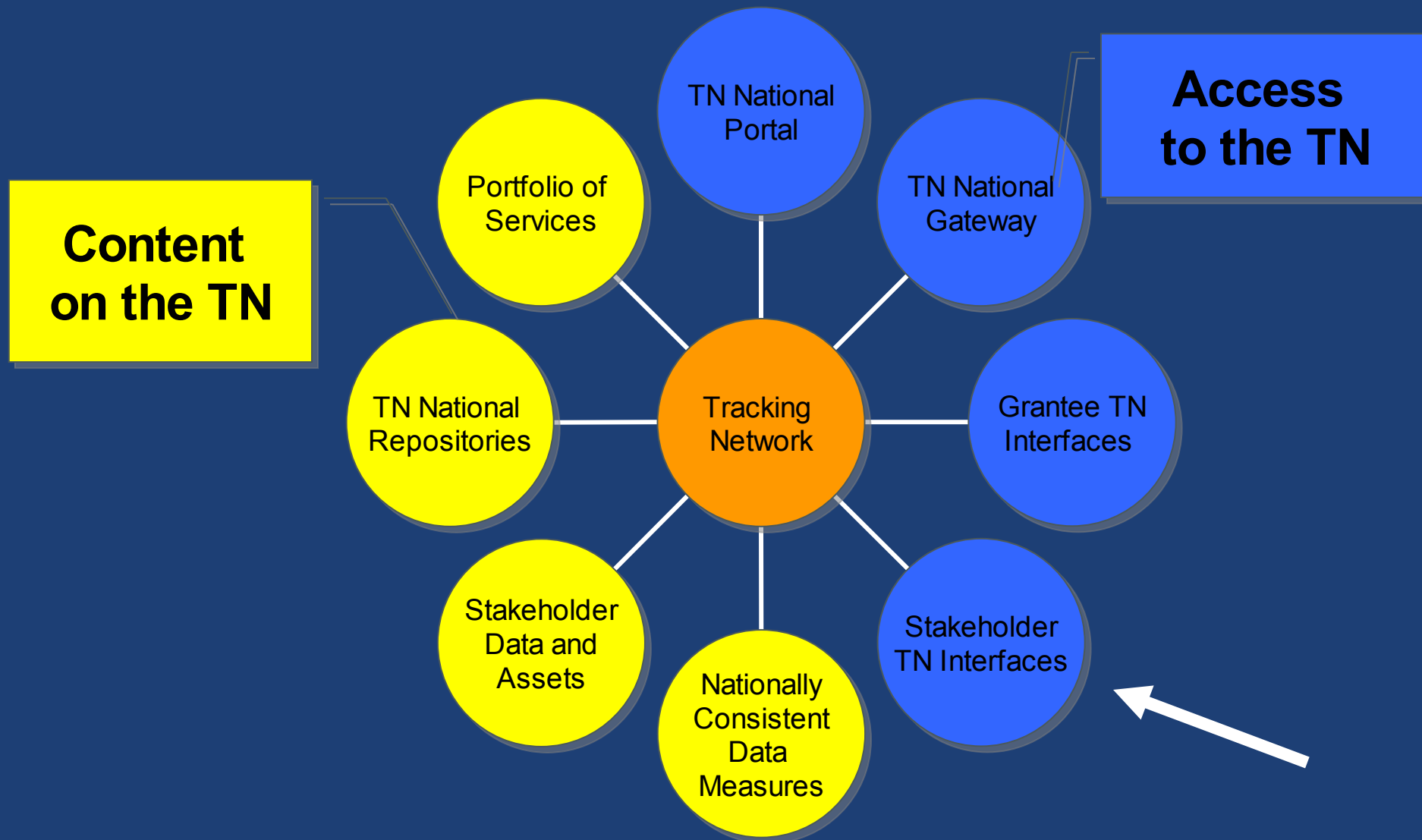
- Grantees will develop gateways to interact with other parts of the Tracking Network in automated ways
- Grantees will develop (or integrate into existing) portals to support specific tracking interactions with other partners
- Recommendations for the specifications of these interfaces will be developed by the SND Workgroup
- CDC will work with grantees to support testing, piloting, and deployment.

# Tracking Network Land



# Tracking Network Components

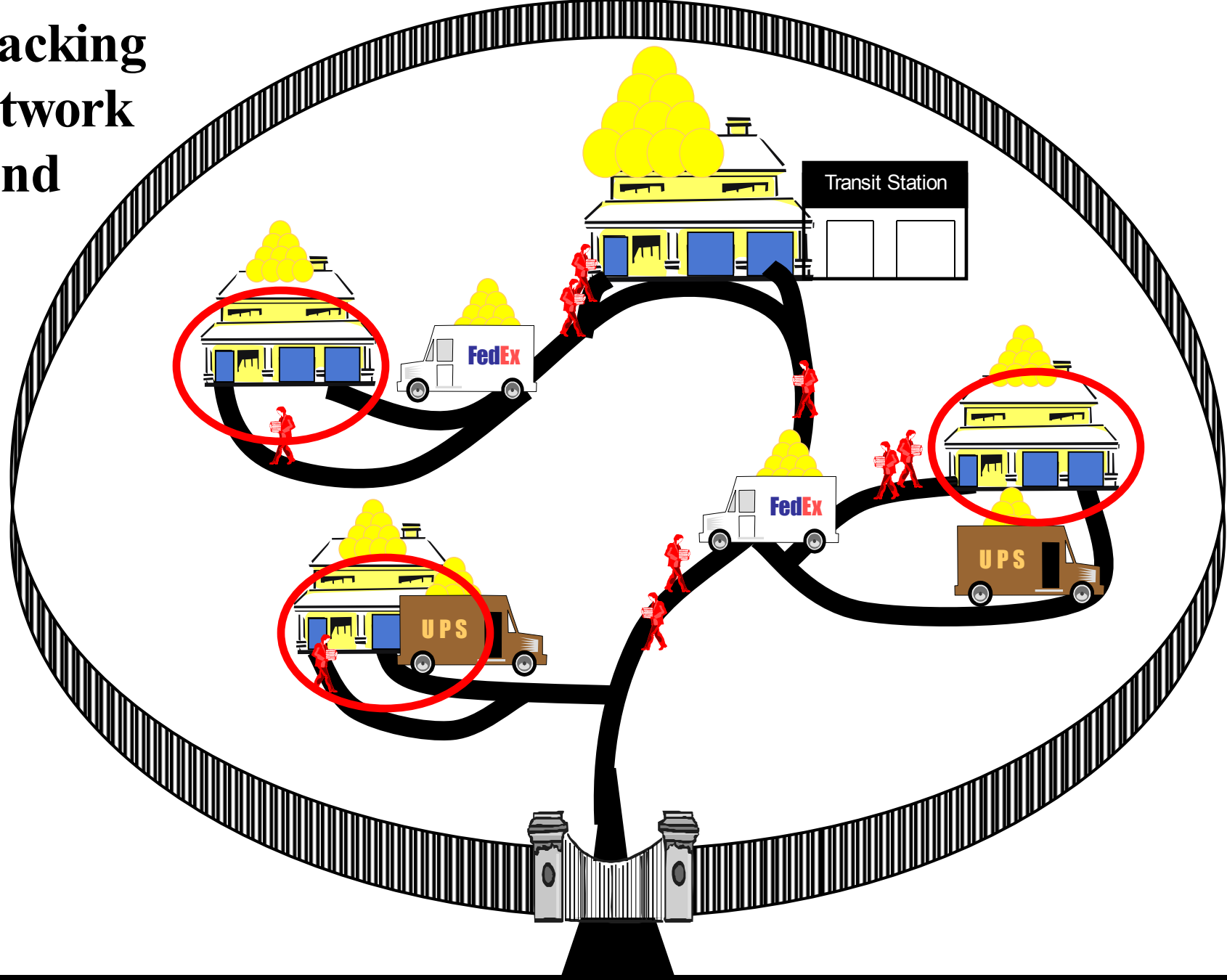
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# Stakeholder Tracking Network Interfaces

- Stakeholder interfaces are the electronic mechanisms by which academic and federal partners and other stakeholders will interact with the Tracking Network to support the exchange of data and services.
- Stakeholders may establish gateways according to Tracking Network specifications (currently under development in the SND Workgroup), but may also maintain other interfaces, such as the EPA Exchange Network nodes.
- Work is proceeding on pilot activities to examine interoperability between the Tracking and Exchange Networks.

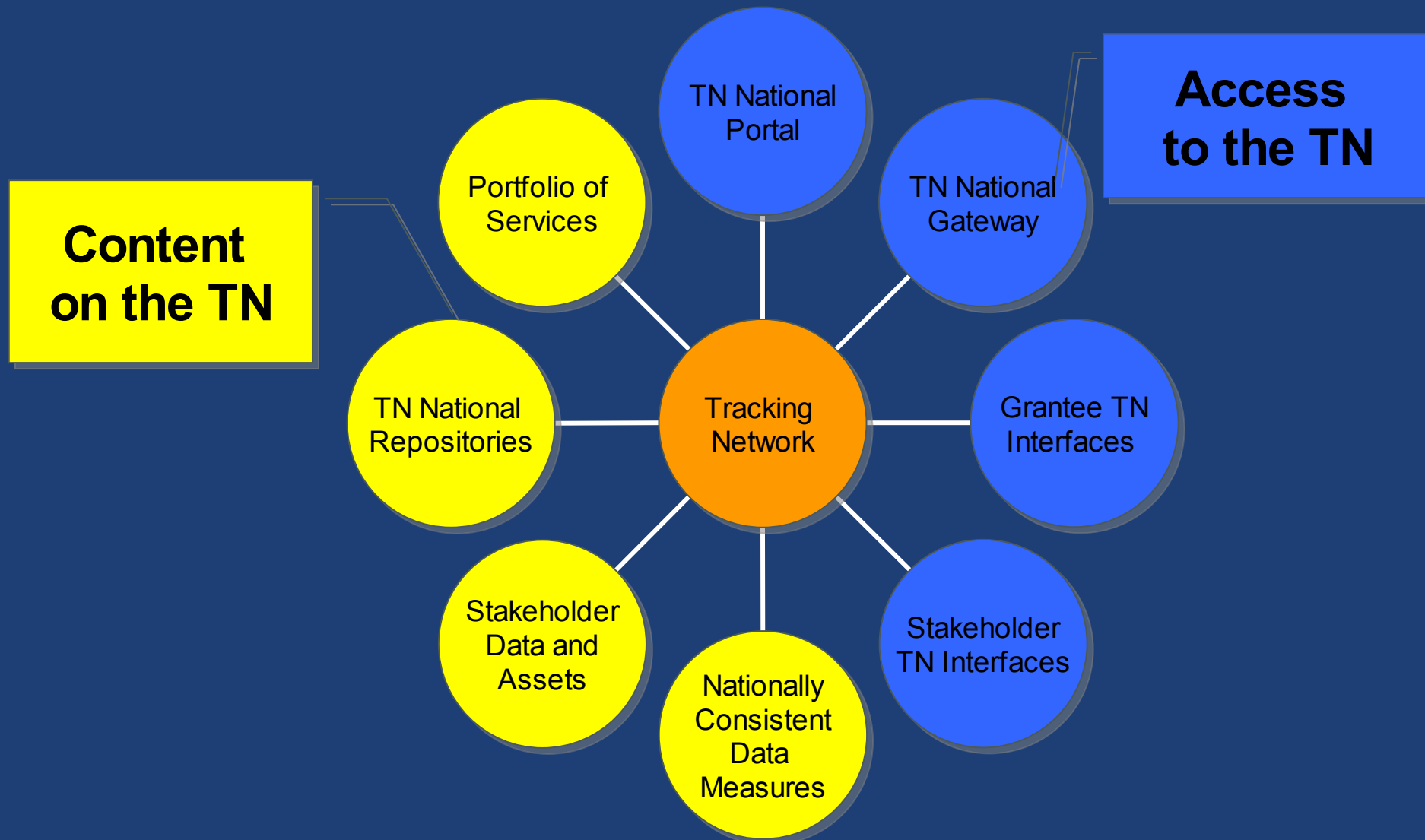
# Tracking Network Land





# Tracking Network Components

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# Types of Tracking Network Content

- Nationally consistent data and measures
- Metadata
- Stakeholder data and assets
- Portfolio of services - tools

# Nationally Consistent Data Measures

- “Nationally consistent data and measures” are electronic and collected/organized based on standards (promoted by CWG).
- Data may come from programs not established for tracking purposes.
- Data will have standardized schema and metadata, and will represent various geographies.
- The detailed data/measures will reside at grantee sites. Access will be based on rights.
- Summary data/measures will be available through the Tracking Network national portal and gateway based on roles.
- Don't forget metadata!

# Stakeholder Data and Assets

- The Tracking Network will also include grantee, partner, and other stakeholder data and assets (e.g., tools).
- Assets may include software tools and services (e.g. geocoding) that might be of interest to other tracking stakeholders.
- These data may not conform to standards
- These data and assets may be accessed securely and be integrated with other data or used with tools on the Tracking Network.

# Examples of Assets

## Methodologies

- Guidelines for ensuring data quality
- Guidelines for linking data
- Protocols for modeling
- Data collection methodologies or best practices

## Models for practice

- Model laws
- Data sharing agreement templates

## Software or shareware

- Metadata input tools
- Mapping tools
- Software to conduct spatial or statistical analyses

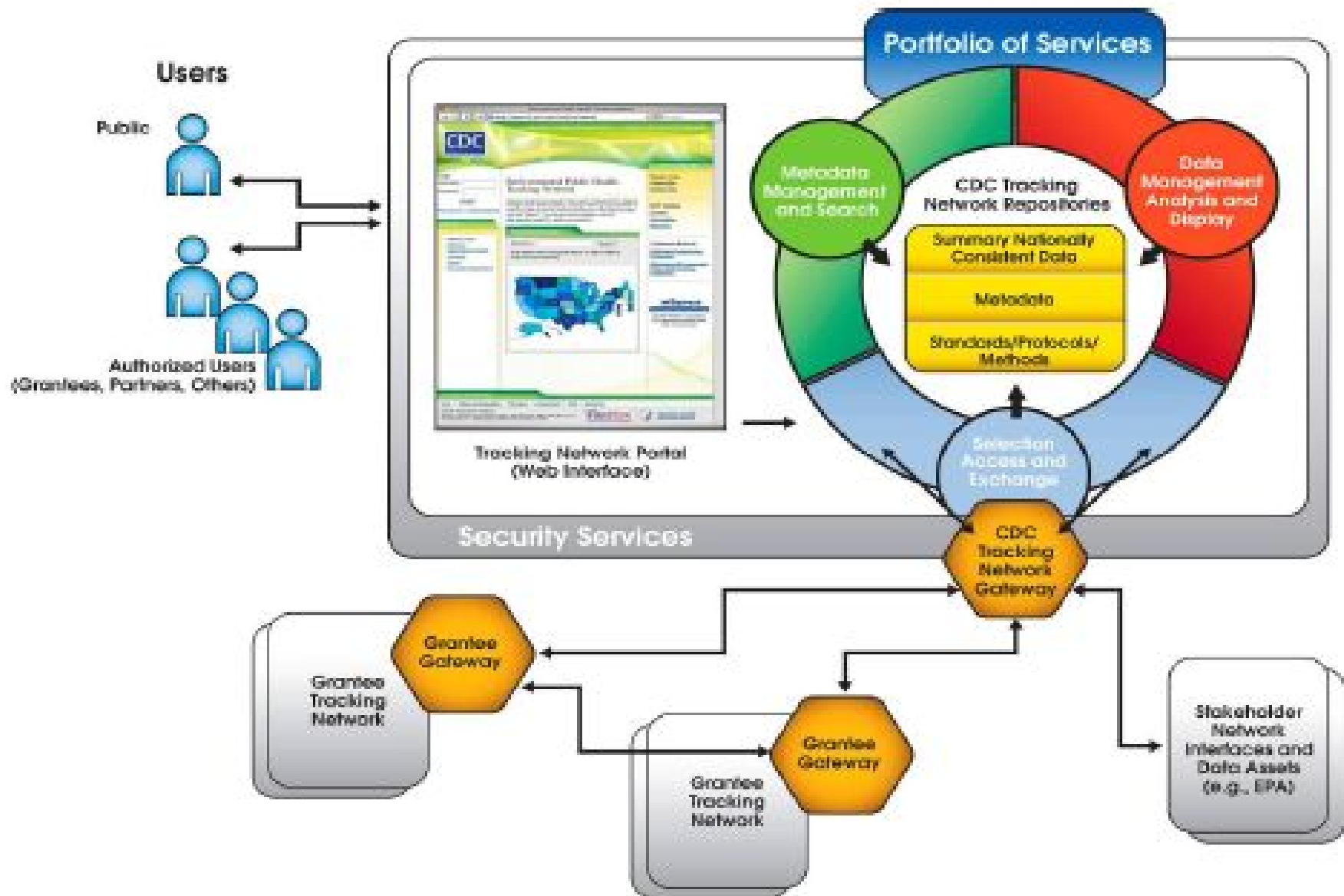
# Portfolio of Services

- Services and tools to be managed by the Tracking Network to support the needs of Tracking Network stakeholders.
- Services available to network users will be dependent on users' defined network roles and may include the following:
  - Metadata management;
  - Data management, analysis and visualization tools and services;
  - Standards, protocols, agreements; and
  - Data search, exchange and access services: including messaging services for gateway interactions as well as secured grantee-to-grantee exchanges.

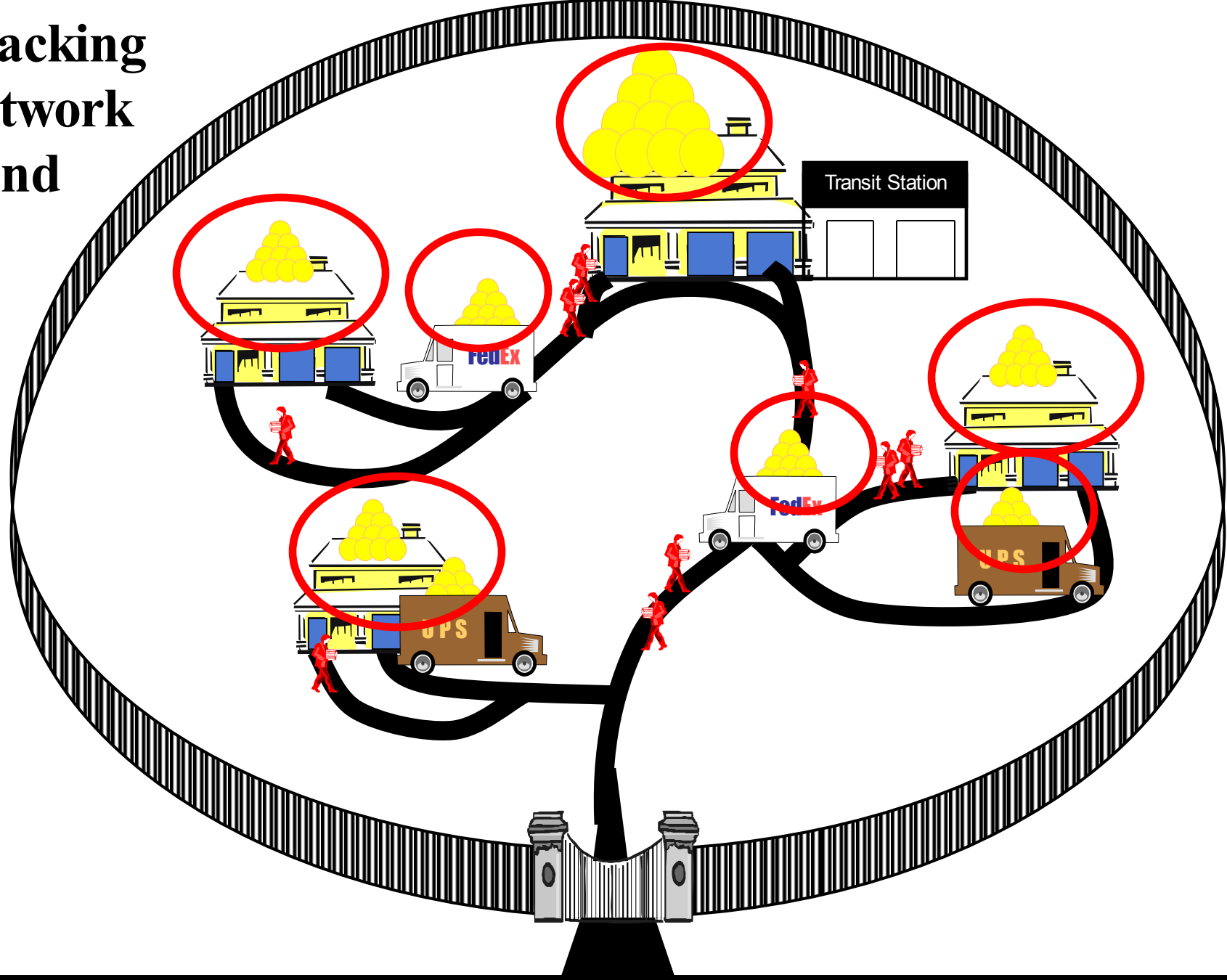


# Tracking Network National Repositories

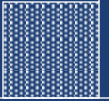
- Data on the Tracking Network will be distributed, stored, and managed at stakeholder sites and at CDC.
- Some data and metadata will be managed centrally by CDC in national repositories. These may include core measures, aggregated data or other “summary information.”
- The national repositories may also house metadata that are centrally managed on the Tracking Network.
- National repositories may be used for storage of other data as requested, by grantees or partners.



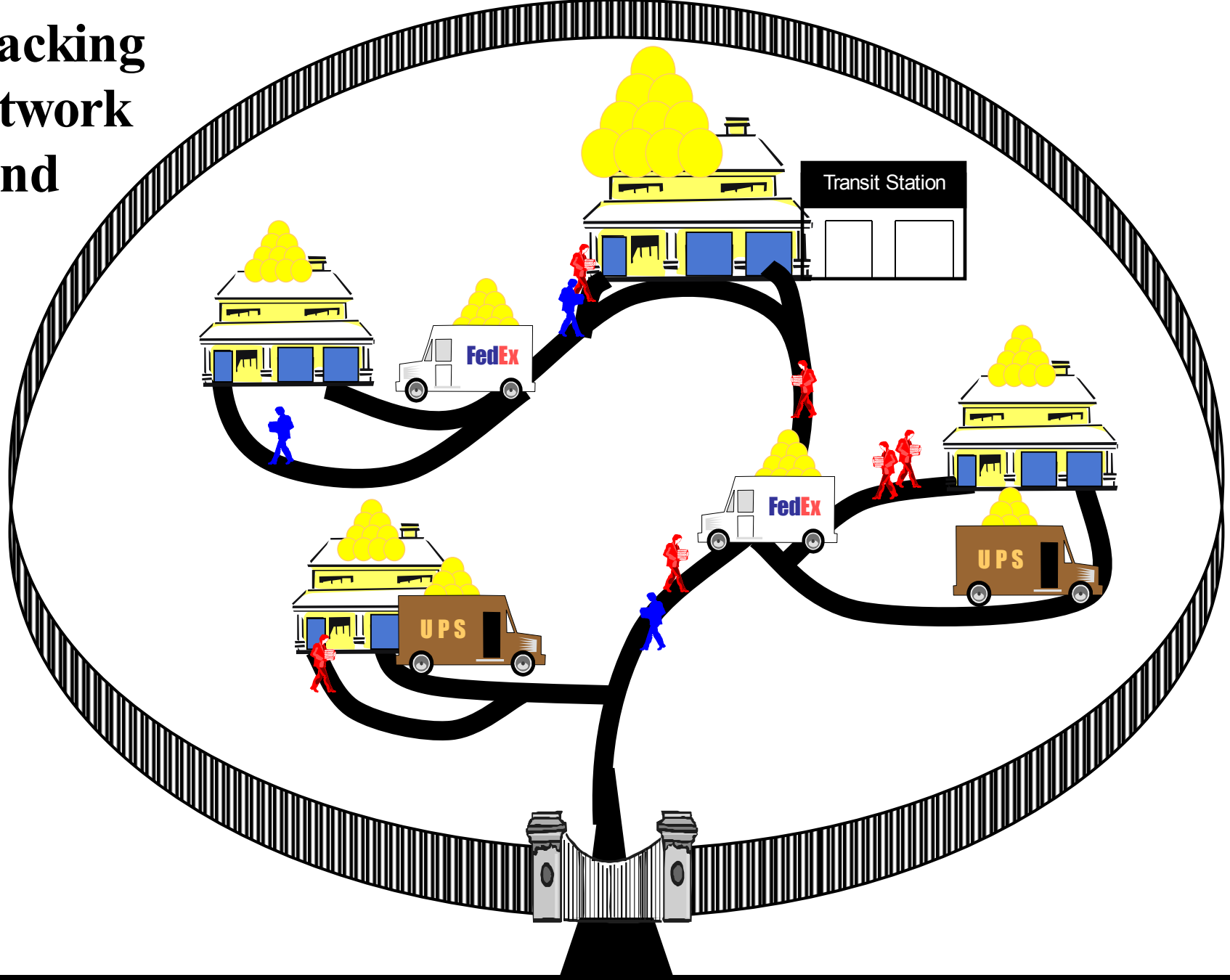
# Tracking Network Land



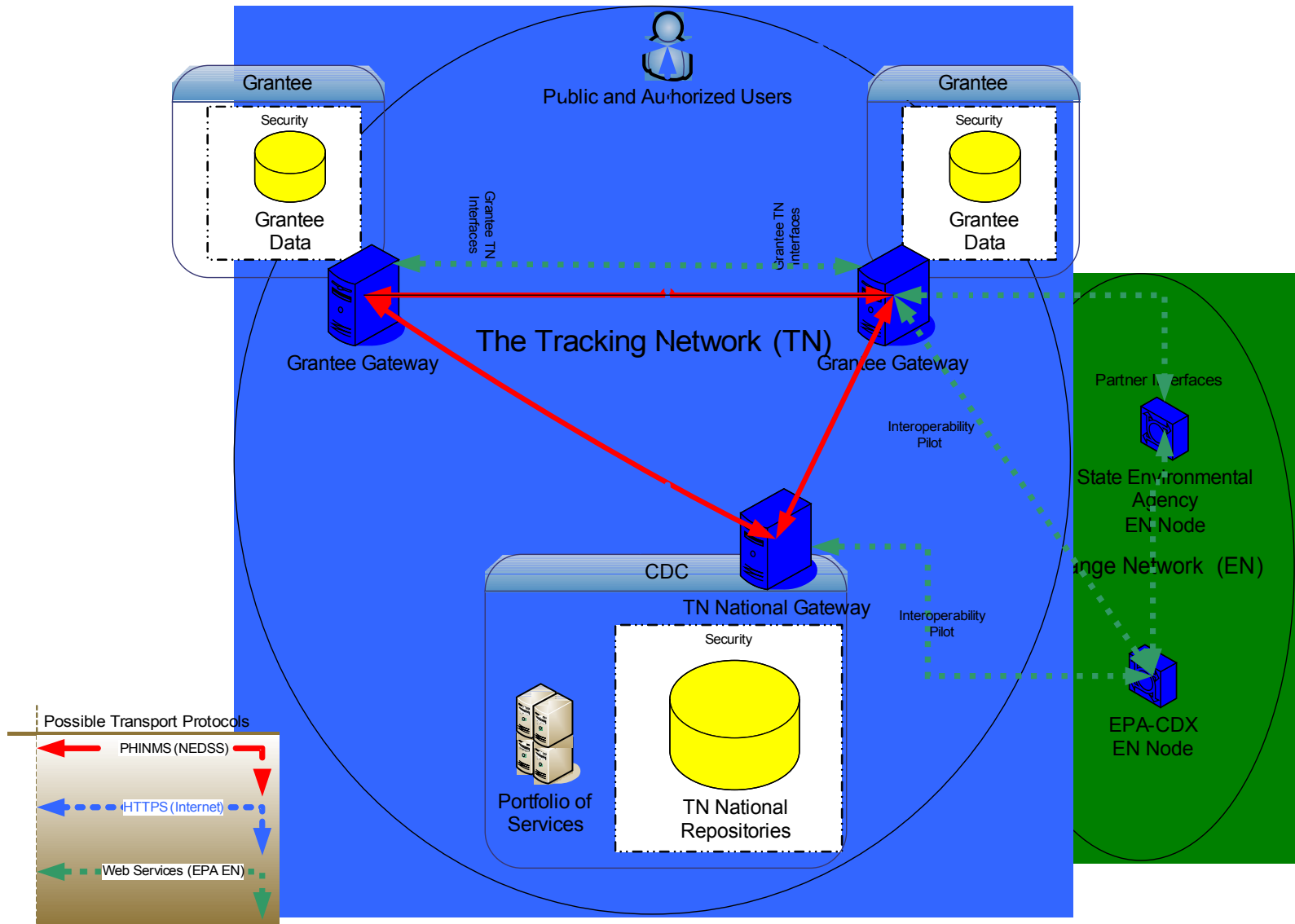
# Roads and Pathways and Gates



# Tracking Network Land



# How it fits and flows together



# PHIN MS

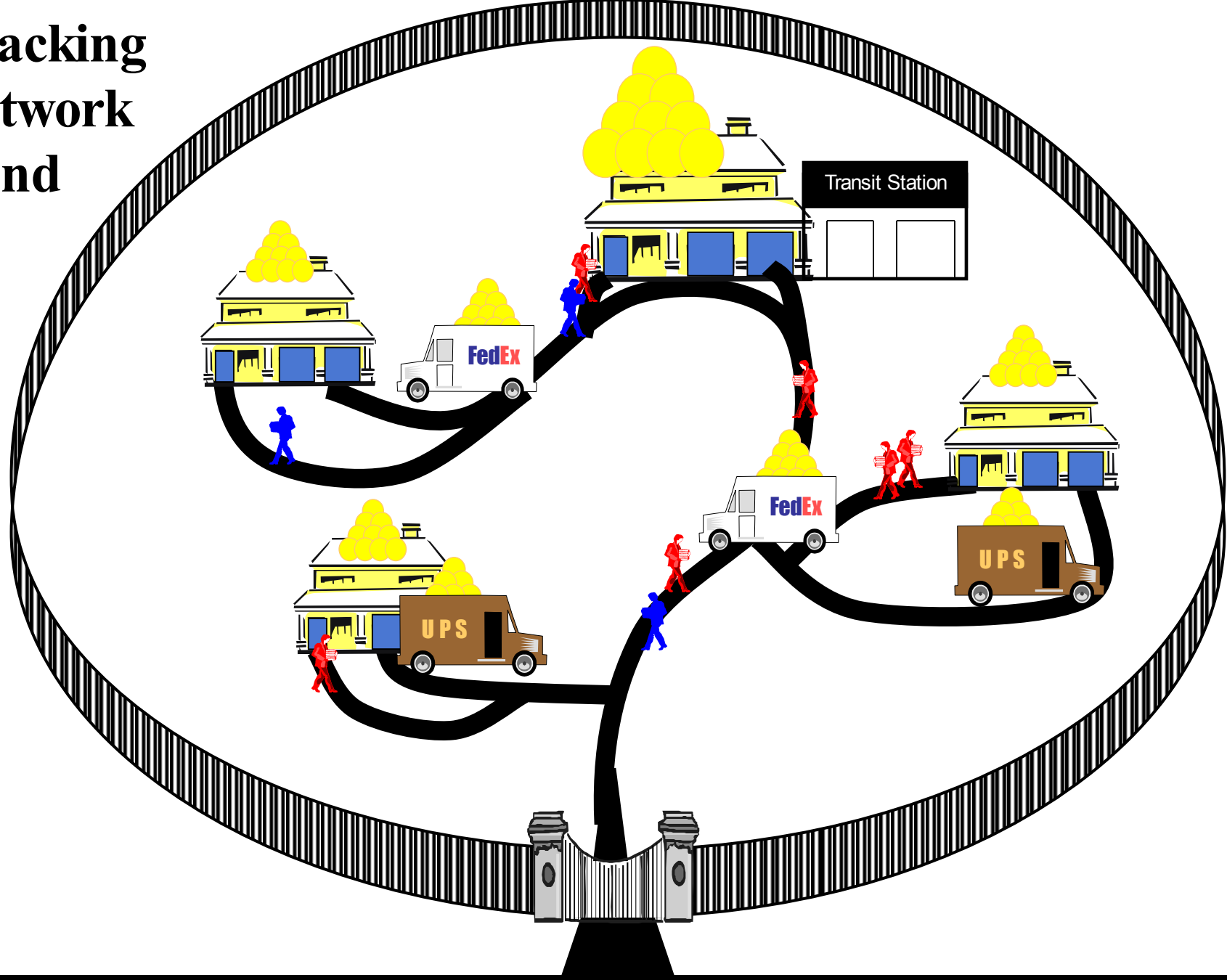
- The Public Health Information Network Messaging System (PHIN MS) is one option for a messaging protocol for gateways on the Tracking Network.
- Messages to gateways will be constructed using a common protocol and gateways will be designed to route messages using the information specified in the messages. Common protocols may support the following actions:
  - Message Construction;
  - Message Routing;
  - Secure Message Transport; and
  - System Authentication.

# EPA Exchange Network protocol

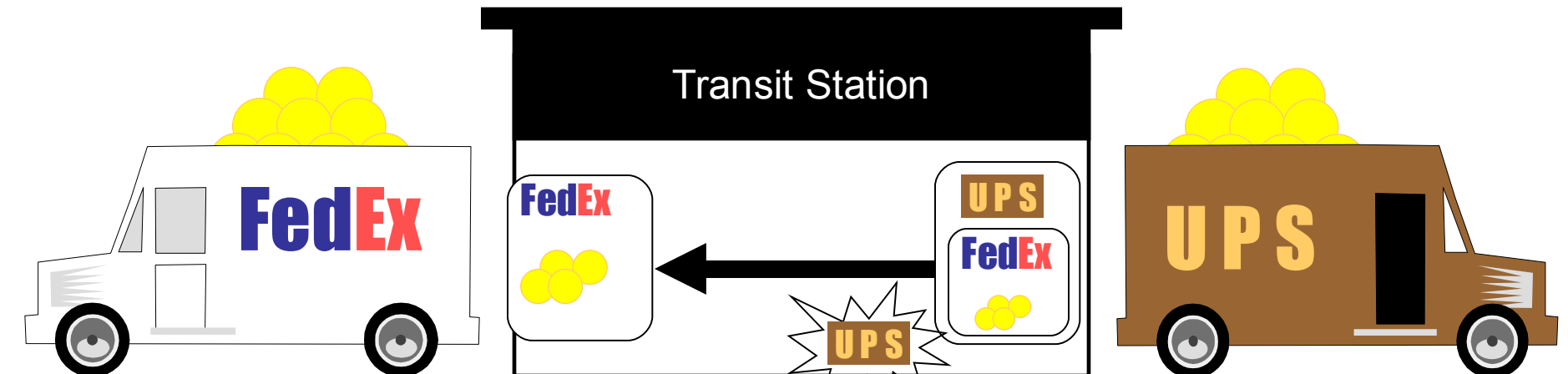
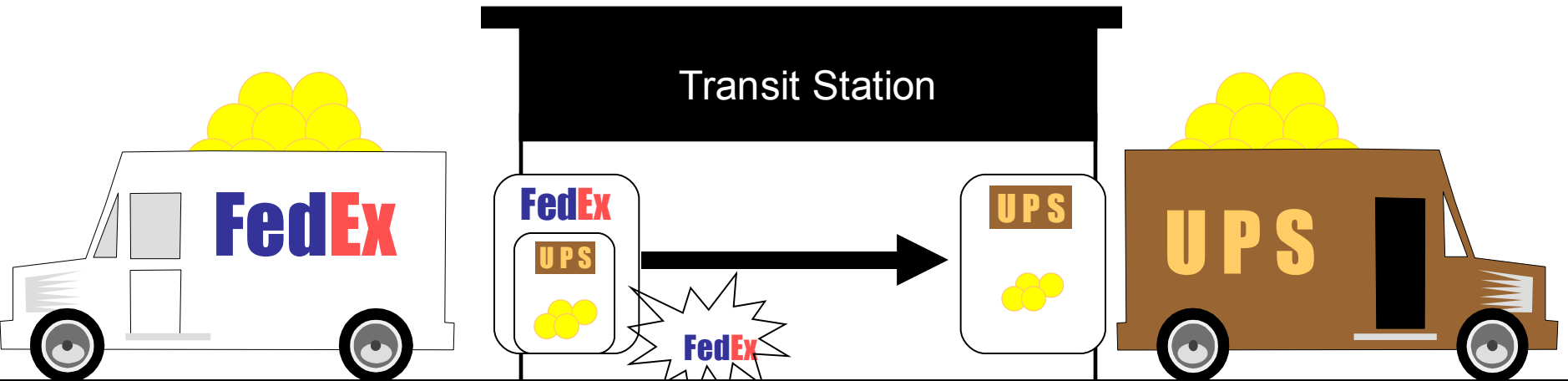
- The EPA's Exchange Network facilitates information sharing among state environmental agencies and the EPA Central Data Exchange (CDX).
- EPA and CDC are currently testing mechanisms to exchange data between their networks.
- Hope is that EPA Exchange Network Nodes will be able to interact with the Tracking Network gateways.

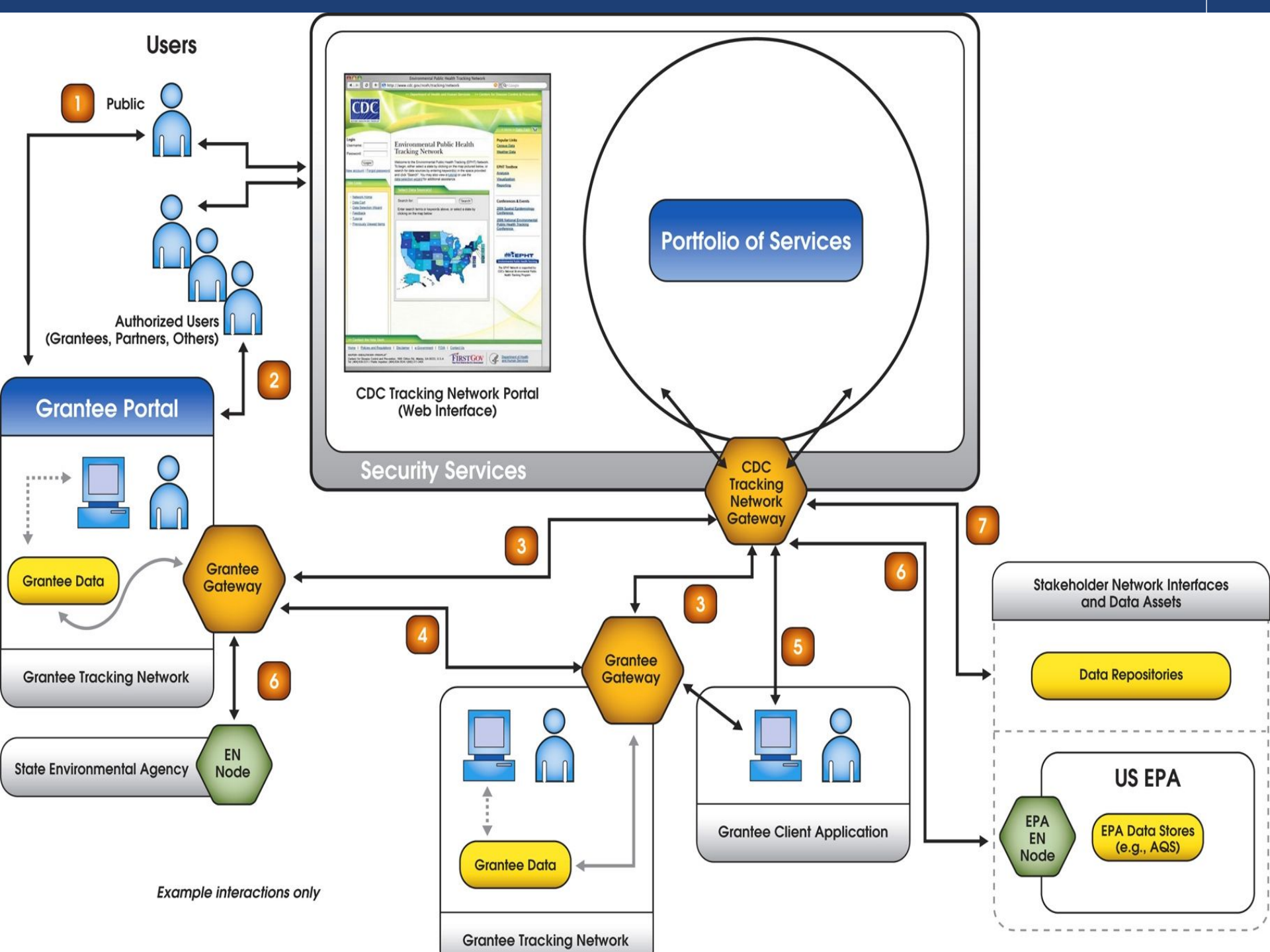


# Tracking Network Land



# Message Translators





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CDC'S NATIONAL ENVIRONMENTAL PUBLIC HEALTH TRACKING PROGRAM

# NATIONAL NETWORK IMPLEMENTATION PLAN (NNIP)





# Questions??



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